

However, inside wire does not fall within the Act's definition of "telecommunications services." As a fully unregulated, non-Title II offering provided by a multiplicity of vendors who are not telecommunications carriers, it is inappropriate and outside of the scope of the Act to include inside wire among the services to be supported by the universal service mechanism. Given the importance of inside wire to achieving educational goals, the FCC may want to look outside of the universal service proceeding to address this issue.³⁹ Likewise, the fund also would not cover items such as customer premises equipment, teacher training, or curricula. It should not be national policy to require one industry (in this case telecommunications carriers and their customers) to pay for products and services offered primarily by another industry (for instance, electrical contractors, LAN installers and computer manufacturers).

The education fund, once fixed in amount, would be divided among the states, using whatever allocation methodology was deemed appropriate to meet equity requirements and national policy goals. The appropriate entity within each state, in turn, would be responsible for allotting a specific dollar amount to each eligible school in the state. While the Commission would stipulate the types of services that these funds could be used for, and could set allocation guidelines for the state or local entity to consider, allocation of the fund within each state could be handled by state and/or local

³⁹ For example, the Commission could revise the location of the point of demarcation at a customer's premises and thus include such wiring in the definition of "telecommunication services" covered in the Act. However, it must be recognized that this action would significantly increase the size of the funding requirement. For example, connections within the school potentially add \$5 billion initial and \$410 million ongoing costs to the Partial Classroom model. McKinsey Report, Exhibit 16 at 57.

organizations that are more familiar with their schools' and libraries' needs, and could be based on any number of criteria, consistent with the public policy goals of the Act.

BellSouth understands the concerns of some commenters who desire to avoid any imposition of additional bureaucratic barriers to the achievement by schools and libraries of the telecommunications service arrangements desired. On the other hand, there is merit in the suggestions of many commenters that state or local entities be involved in reviewing or coordinating requests for universal service support dollars to assure that a variety of public interest goals are met. For instance, an involved state or local entity could work with schools and libraries to assure that the most efficient use of universal service support dollars is achieved, to assure that additional funding sources have been approached for assistance, to assure that other components necessary for the beneficial use of the telecommunications services are or will be in place, and to assure coordination with any state or local telecommunications technology plan.⁴⁰

Additional dialogue among the telecommunications and education library segments will no doubt be very useful in fleshing out the details in a way which is most desirable to achieve the ultimate goal. BellSouth supports such dialogue and would be interested in

⁴⁰ As BellSouth stated in its Comments, it is important to assure that the availability of universal service support for schools and libraries does not result in expenditures for telecommunications services which lie unused due to a school's or library's inability to incorporate the service into overall educational plans or to provide the remaining components which are necessary for meaningful use. It would appear that the greater the size of the support fund, the greater becomes the public interest in assuring that those dollars are, in fact, being utilized by schools and libraries and that such use is meaningful from an educational standpoint. State and local entities could have a useful role in this regard.

participating in additional discussion to further develop the details of a flexible discount mechanism.

CONCLUSION

As this Reply demonstrates, BellSouth has proposed an approach to establish a new framework toward universal service support that will meet the goals of the Telecommunications Act of 1996. BellSouth urges the Joint Board to act expeditiously to adopt BellSouth's recommendations so that efforts can be refocused on implementation.

Respectfully submitted,

BELLSOUTH CORPORATION
BELLSOUTH TELECOMMUNICATIONS, INC.

By:



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Richard M. Sbaratta

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Date: May 7, 1996

ATTACHMENT I

**ANALYSIS OF THE BENCHMARK
COSTING MODEL**

APPENDIX I

ANALYSIS OF THE BENCHMARK COSTING MODEL

On September 12, 1995, U S WEST Inc., MCI Telecommunications Corporation, The NYNEX Telephone Companies and Sprint Corporation (Joint Sponsors) submitted for the record in CC Docket 80-286 a Benchmark Costing Model (BCM). The Joint Sponsors provided written documentation of the BCM Model as well as results for six states (California, Colorado, Ohio, Pennsylvania, Tennessee, and Texas). BellSouth has analyzed the results from the BCM for the state of Tennessee. Based on this analysis, it is apparent that there are numerous flaws with the BCM which make it unacceptable for use in calculating high cost assistance. The problems with the BCM include the following:

1. There is significant variation between the proxy costs as calculated by the BCM and their relationship to actual embedded direct costs. As can be seen in Exhibit 1, the difference between the BCM cost per loop and the BellSouth actual cost per loop was greater than 20% in over 63% of BellSouth's central offices. The difference was greater than 100% in over 15% of BellSouth's central offices. Thus, there is little correlation between the BCM proxy costs and actual costs. This variation occurs for many reasons. The BCM only considers a few variables which impact cost. Some variables, such as rate of growth (rapid growth tends to result in increased cost) and climate (high humidity and high rainfall can result in higher than expected costs) are not included in the model.
2. The BCM assigns numerous census block groups to the wrong wire center¹. As is depicted in Exhibit 2, approximately 20% of the census block groups in Tennessee were assigned to the wrong wire center. This error occurs due to the fact that, for costing purposes, the model assigns a census block group to the nearest wire center as opposed to the actual serving wire center. This approach ignores existing company serving area boundaries as well as the way that the actual serving network has been constructed over the years.
3. Census block group boundaries generally do not coincide with wire center boundaries. As a result, many census block groups are actually served by two or more central offices. An example of this problem can be seen in Exhibit 3. Looking at the Sweetwater, Tennessee central office, there are 18 census block groups which are at least partially served by the Sweetwater central office. However, 9 of these census block groups are also served by at least one other wire center. For costing purposes, the BCM assigned 10 census block groups to the Sweetwater wire center. These are shown in Exhibit 4. As this exhibit shows, much of the area within the Sweetwater central office serving area was not considered to be associated with the Sweetwater central office when costed out by the BCM. Thus, for a large percentage

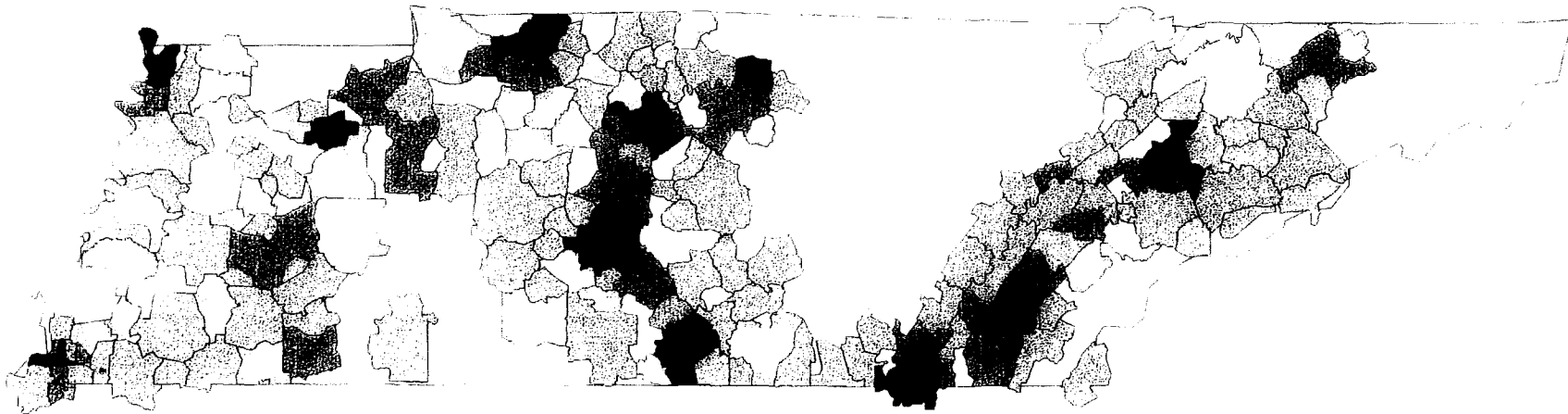
¹ It is assumed that the 'correct' wire center contains the centroid of the census block group.

of the area, there is no relationship between the costs calculated by the BCM and the actual switched network that is in place.

4. The BCM assumes that customers are evenly distributed throughout a census block group. As a result of this assumption, the model will tend to overestimate costs for sparsely populated census block groups. The reason for this is that there are many census block groups that contain large amounts of uninhabited area. This can be caused by a multitude of reasons including mountains, swamps, deserts, and National Parks. An example of this can be seen in Exhibit 6. This exhibit depicts area around Gatlinburg, Tennessee. As is shown, some census block groups contain area within the Great Smoky Mountains National Park. In fact, census block group # 471550811006 has 90% of its land area located within the National Park. That might explain why it has a BCM calculated loop cost of \$3780 per household. The BCM assumes that households in these census blocks are evenly distributed. In reality, there are almost no households in Great Smoky Mountains National Park. Households that are in these census block groups will tend to be clustered in the area outside of the National Park. Since the BCM does not take this into account, it produces proxy costs that have minimal relationship to the actual cost of providing service.
5. The BCM is based on households rather than access lines (both residence and business). The BCM may show a census block group in a downtown area as having a low density in terms of households per square mile. In reality, that census block group may contain many businesses. This would result in a relatively high density per square mile when calculated on an access line basis.

Exhibit 1

**There is Significant Variation Between US West's
Benchmark Model Costs & BellSouth's Actual Costs**



**% Difference in Actual vs US West Benchmark Costs
() of Wire Centers**

| | | |
|---|------------------|------|
| ■ | +/- 100% to 422% | (27) |
| ▨ | +/- 50% to 100% | (31) |
| ▧ | +/- 20% to 50% | (68) |
| ▩ | +/- 10% to 20% | (41) |
| □ | +/- 0% to 10% | (31) |

**NOTE: Unshaded area represents Independent
Telephone Company Territory**

Exhibit 2

**863 Census Block Groups (Almost 20%) In Tennessee Were
Assigned to Incorrect Wire Centers in the US West Benchmark Cost Model**



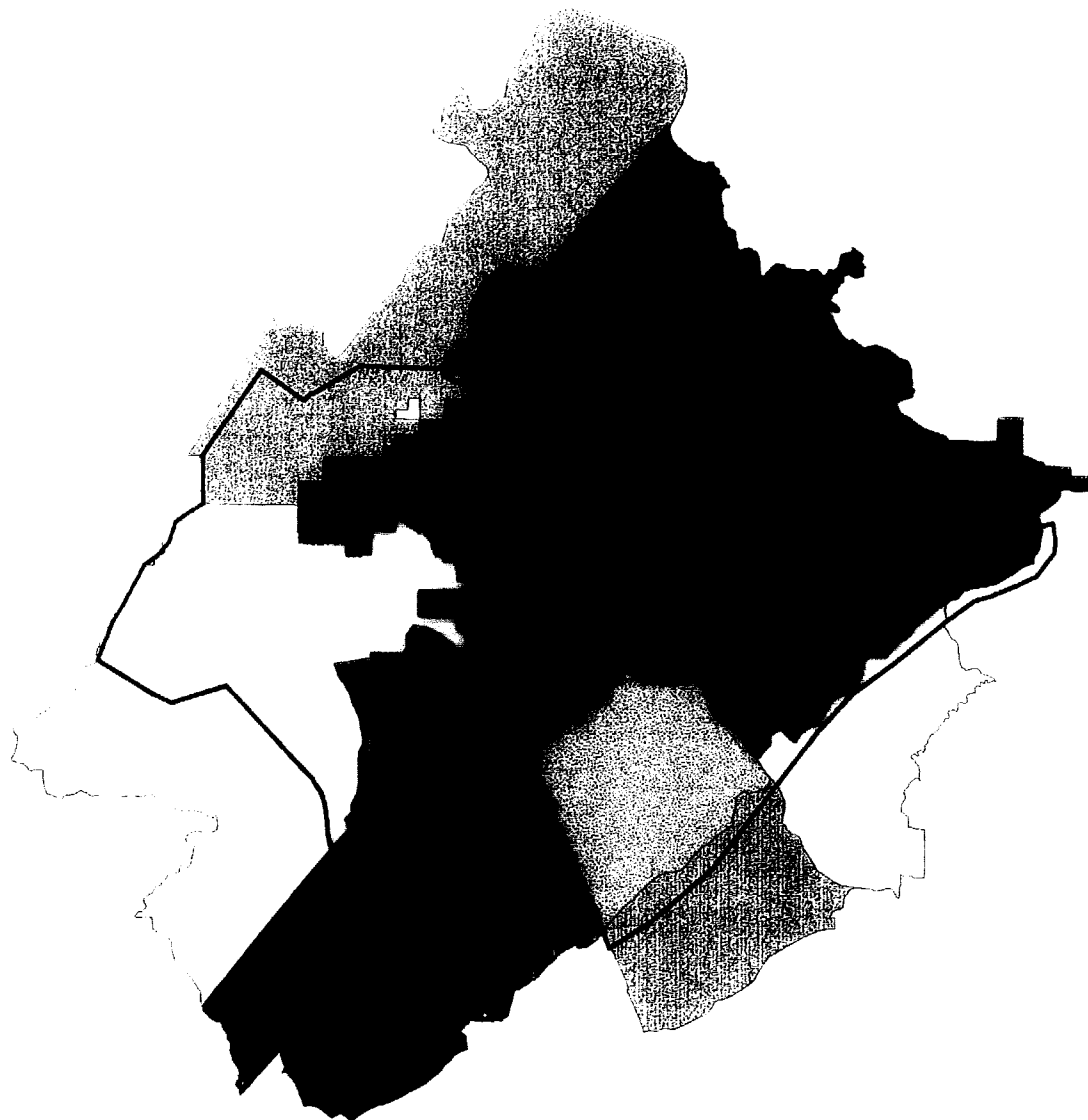
CBGs Assigned to Incorrect Wire Centers

() Number of CBGs

| | | |
|---|--|-------|
| ■ | BellSouth CBGs Assigned to Independent Telco | (135) |
| ■ | BellSouth CBG Assigned to Other BellSouth WCTR | (520) |
| □ | Independent CBG Assigned to Other Independent WCTR | (198) |
| ■ | Independent CBG Assigned to BellSouth | (10) |

Exhibit 3

Census Block Group Boundaries Do Not Align With Wire Center Boundaries

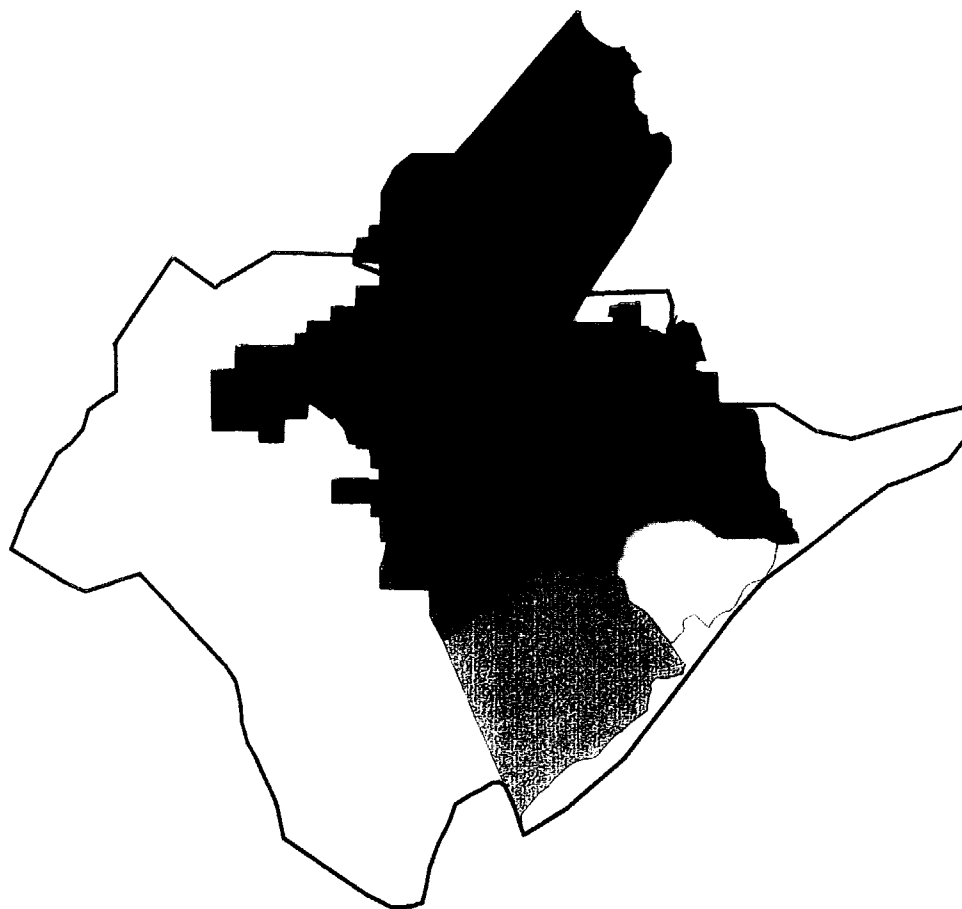


□ SWEETWATER, TN Wire Center

CBGs At Least Partially Served by
Sweetwater, TN Wire Center

- 471050607001
- 471050607002
- 471050607004
- 471079701001
- 471079701002
- 471079701005
- 471239851001
- 471239851002
- 471239851003
- 471239851004
- 471239851005
- 471239852001
- 471239852002
- 471239852003
- 471239852004
- 471239853001
- 471239854005
- 471450303001

Exhibit 4

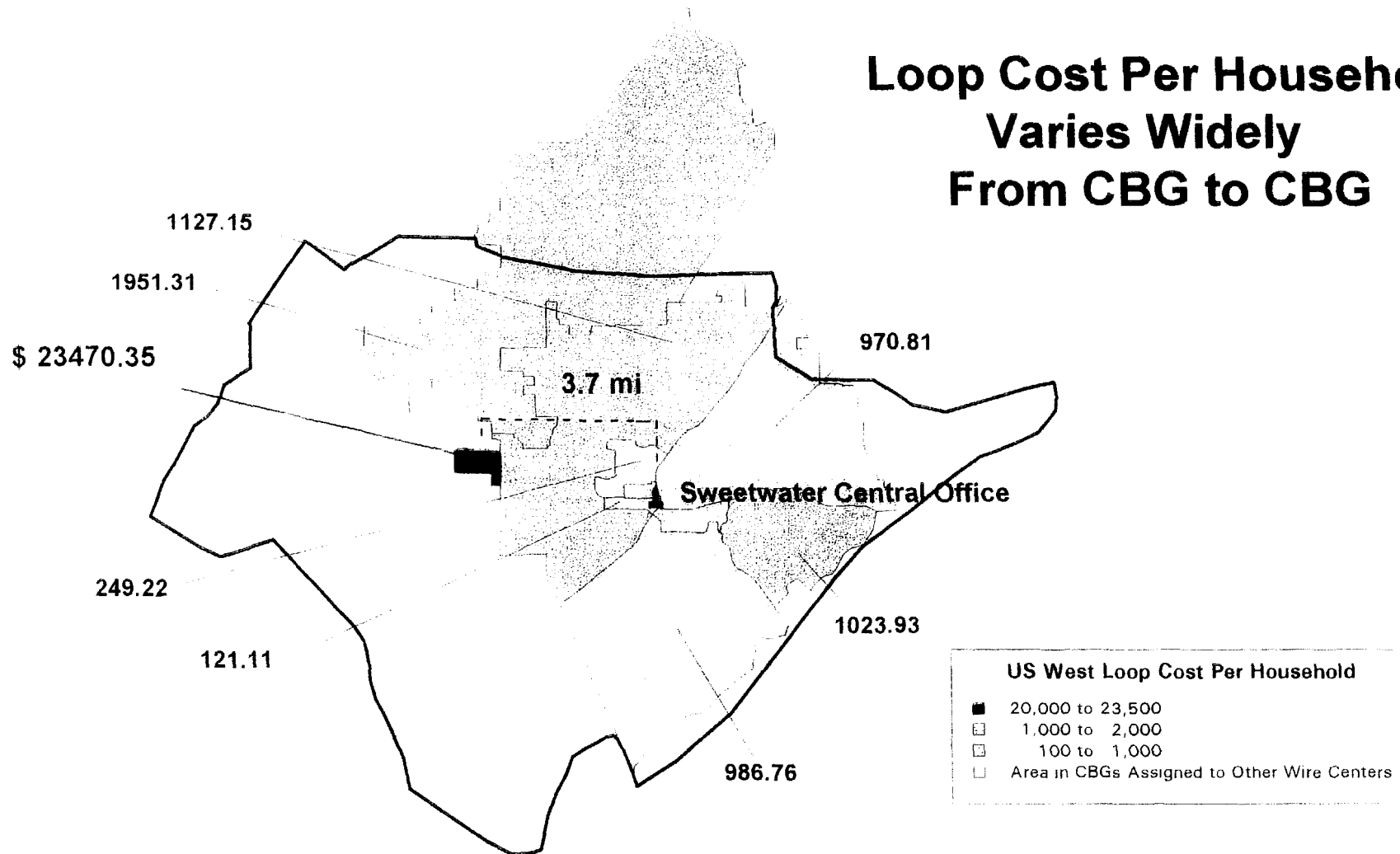


**Much of the Area Served By the
Sweetwater Wire Center was
Assigned to Other Wire Centers
in the US West Model**

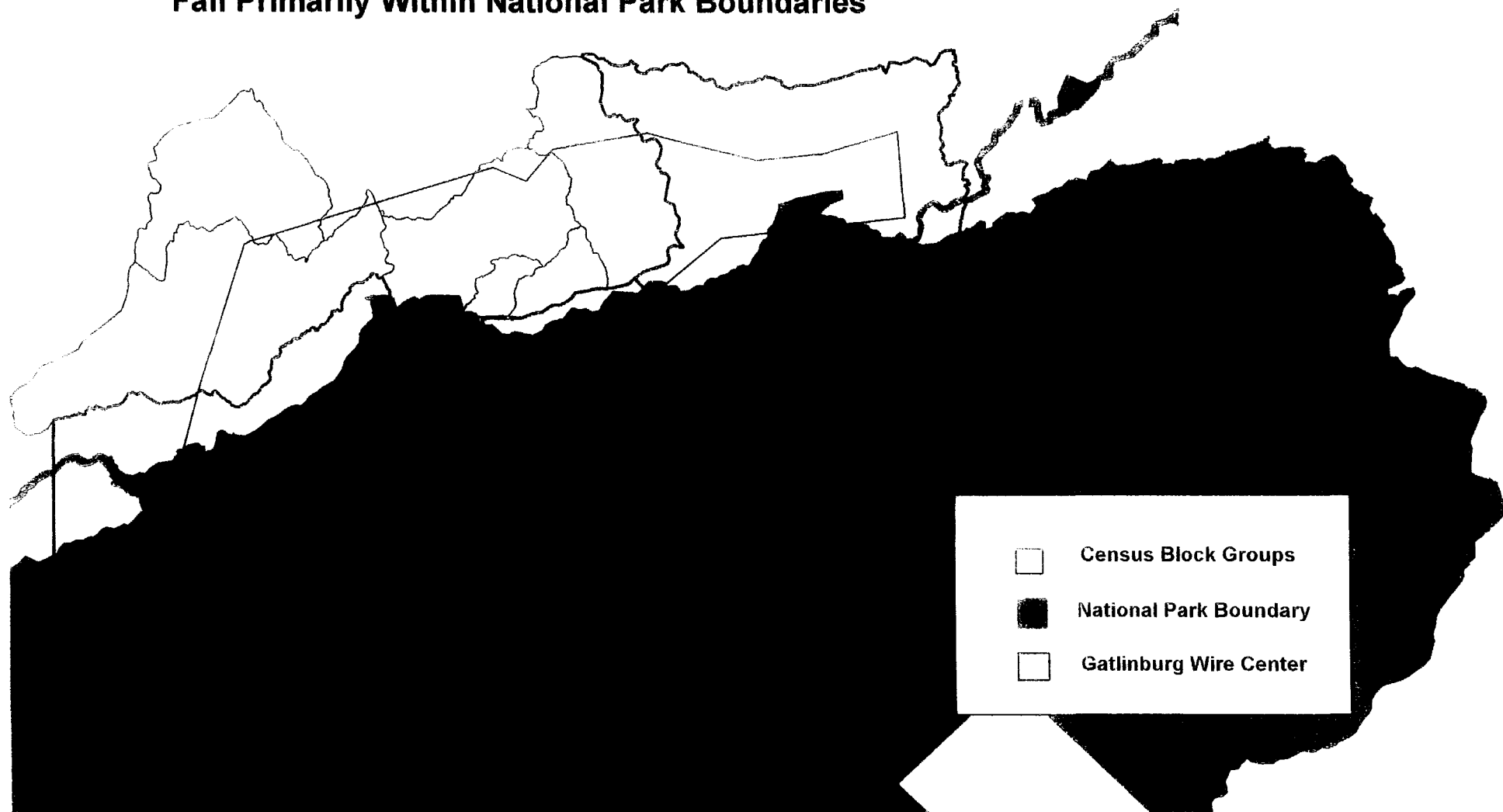
**CBGs Assigned to Sweetwater Wire Center
by US West**

- 471050607002
- 471050607004
- 471239851001
- 471239851002
- 471239851004
- 471239851005
- 471239852001
- 471239852002
- 471239852003
- 471239852004
- Area Assigned to Other Wire Centers

Loop Cost Per Household Varies Widely From CBG to CBG



**Some Large CBGs Which Indicate High Costs
Fall Primarily Within National Park Boundaries**



ATTACHMENT II

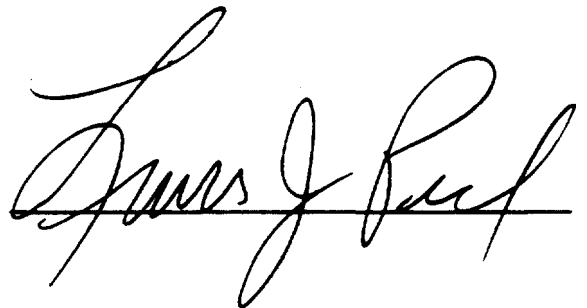
AFFIDAVIT

STATE OF NEW YORK

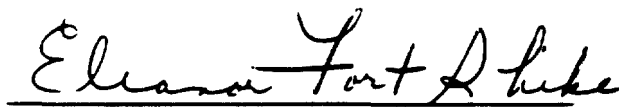
COUNTY OF NEW YORK

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Dr. Lewis J. Perl, Senior Vice President of National Economic Research Associates, Inc. (NERA), who, being by me first duly sworn, deposed and said that:

He is appearing as a witness before the Kentucky Public Service Commission in Administrative Case No. 355 on behalf of BellSouth Telecommunications, Inc., and if present before the Commission and duly sworn, his testimony would be set forth in the annexed testimony consisting of 25 pages. and 1 Exhibit.



SWORN TO AND SUBSCRIBED BEFORE ME
THIS 6TH DAY OF FEBRUARY, 1996


Notary Public

My Commission Expires:

ELEANOR FORT SHIKE
Notary Public, State of New York
No. 31-8974420
Qualified in New York County
Commission Expires March 30, 1996

BELLSOUTH TELECOMMUNICATIONS, INC.
DIRECT TESTIMONY OF LEWIS J. PERL
BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION
ADMINISTRATIVE CASE NO. 355

1 **I. INTRODUCTION AND SUMMARY**

2 Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

3 A. My name is Lewis J. Perl. I am Senior Vice President of National Economic Research
4 Associates, Inc. (NERA), an economic consulting firm specializing in the economics of
5 energy, telecommunications, the environment, antitrust and labor. My business address
6 is 1166 Avenue of the Americas, 31st Floor, New York, NY 10036.

7 Q. PLEASE DESCRIBE BRIEFLY YOUR EDUCATIONAL AND EMPLOYMENT
8 BACKGROUND.

9 A. I received my B.S. degree in industrial and labor relations from Cornell University in
10 1963. I received my M.A. degree in 1968 and my Ph.D. degree in 1970, both in
11 economics from the University of California at Berkeley. From 1968 to 1972, I taught
12 economics at the New York State School of Industrial and Labor Relations at Cornell
13 University. Since 1972, I have been employed by National Economic Research
14 Associates, Inc., an economic consulting firm.

15 Q. PLEASE DESCRIBE THE NATURE OF NATIONAL ECONOMIC RESEARCH
16 ASSOCIATES, INC., AND YOUR WORK IN THE FIRM.

17 A. National Economic Research Associates, Inc., (NERA) was established in 1961 to offer
18 economic consulting services in a number of fields, with particular emphasis on
19 regulated industries and their problems.

20 Since joining NERA in 1972, I have been responsible for a variety of studies
21 relating to telecommunications. I have testified on competition in the
22 telecommunications industry and on incentive and price regulation before the
23 Kentucky, Louisiana, Mississippi, North Carolina, and Tennessee Public Service
24 Commissions and the Canadian Radio-television and Telecommunications Commission

1 (CRTC). I have done a number of studies on the marginal cost of telephone service, the
2 impact of cost-based pricing on the welfare of telephone consumers, the demand for
3 telephone service, and the prudence of investment decisions by telephone companies,
4 and I have testified on these issues before the California, Connecticut, Kentucky,
5 Maryland, Massachusetts, and Minnesota Public Service Commissions.

6 A complete list of publications and testimonies related to telecommunications is
7 contained in the vita which is attached as Exhibit LJP-1.

8 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

9 A. The Kentucky Public Service Commission ("Commission") has opened this docket to
10 seek input from various parties on the competitive provision of local telephone service.
11 I have been asked by BellSouth Telecommunications, Inc. ("BellSouth") to address a
12 number of the economic issues that the Commission has identified in this docket. My
13 testimony will address, in particular, the underlying economics of universal service and
14 local interconnection.

15 Q. WHAT ARE THE PRINCIPAL ECONOMIC ISSUES RELATED TO UNIVERSAL
16 SERVICE IN LOCAL EXCHANGE MARKETS THAT HAVE BEEN OPENED TO
17 COMPETITION?

18 A. In my opinion, there are three important economic issues that must be settled in order
19 to establish a mechanism to support universal service in an efficient and competitively
20 neutral manner. These are:

- 21 1. The economic rationale for replacing the present system of universal service
22 support.
- 23 2. The appropriate size of the universal service fund.
- 24 3. The steps necessary to assure consistency between the proposed universal service
25 support mechanism and an economically efficient and workably competitive
26 telecommunications market.

27 Q. WHAT ARE THE PRINCIPAL ECONOMIC ISSUES TO BE RESOLVED IN
28 ESTABLISHING AND PRICING LOCAL INTERCONNECTION IN
29 TELECOMMUNICATIONS MARKETS?

1 A. With respect to local interconnection, the principal focus of my testimony is on the
2 appropriate approach to pricing local interconnection service. I outline the economic
3 principles to be used in establishing local interconnection prices and address the
4 appropriateness of alternative compensation arrangements between the incumbent local
5 exchange carrier (LEC) and the alternative local exchange carrier (ALEC). I also
6 examine the factors which are likely to result in reciprocal but unequal pricing of local
7 interconnection service.

8 Q. PLEASE SUMMARIZE YOUR PRINCIPAL RECOMMENDATIONS AND
9 CONCLUSIONS REGARDING THESE ISSUES.

10 A. My principal recommendations and conclusions are as follows:

11 Universal Service

- 12 1. The present system of universal service support, based on contribution raised from
13 the LEC's service prices, is economically inefficient and probably unsustainable in
14 the face of competitive or potentially competitive telecommunications markets.
15 That system should be replaced by an explicit, broad-based, and competitively
16 neutral universal service fund.
- 17 2. The universal fund initially should be sized to reflect the current difference between
18 the rate and the incumbent LEC's embedded cost of providing universal service. A
19 portion of this fund should be targeted to recover the incumbent LEC's reserve
20 deficiency allowance for these services. The remainder should be recoverable on a
21 per line basis in accordance with the number of lines served either by the
22 incumbent LEC or by eligible competitors. That portion would, hence, be portable.
- 23 3. Making universal service support portable will meet four key objectives. First, it
24 will assure that the Commission's universal service objectives are met. Second, it
25 will assure that competition for local exchange service occurs on a level playing
26 field. Third, it will permit the incumbent LEC to recoup its embedded cost to the
27 extent it is the most economic service provider. Fourth, it will obviate the need for
28 carrying out the almost impossible task of predicting in advance the incremental
29 cost of local exchange service.

30 Local Interconnection

- 31 1. In a competitive local exchange, the price of local interconnection service should
32 be set on the basis of incremental cost plus an appropriate contribution.
- 33 2. The compensation scheme chosen for interconnecting carriers must reflect the cost
34 to each of providing interconnection by making the best use of its network. Each
35 carrier may impose a charge for terminating local calls originated by another.

- 1 3. Compensation schemes that do not recognize these costs of terminating cross-
2 network local traffic, e.g., "bill and keep" or "mutual traffic exchange," are ill-
3 suited for interconnection among competing carriers. Bill and keep relies on a
4 number of simplistic and generally insupportable assumptions about customer
5 characteristics, carriers' cost characteristics, and carriers' incentives regarding
6 traffic exchange under competition. Accordingly, a reciprocal charge scheme, not
7 bill and keep, should be implemented for local interconnection compensation.
- 8 4. While compensation between carriers should be reciprocal, the rate need not be
9 necessarily equal. The rate should reflect (1) the actual cost to the terminating
10 carrier of routing an inbound local call to its final destination, and (2) the support
11 needed by the terminating carrier toward its shared and common costs and any
12 other legitimate special obligation (e.g., universal service) for which alternative
13 support sources do not exist.

14 II. UNIVERSAL SERVICE

15 A. The Case For an Alternative Universal Service Support 16 Mechanism

17 Q. PLEASE REVIEW THE HISTORICAL CONTEXT OF THE UNIVERSAL SERVICE
18 PROGRAM IN KENTUCKY.

19 A. In Kentucky, the universal service program has historically been provided by
20 designated carrier of last resort (COLR) LECs, of which BellSouth is the largest in size
21 and scope and has the largest serving area. Also, BellSouth has traditionally provided
22 primary residential local flat-rated service below both the fully allocated embedded
23 cost and the forward-looking economic incremental cost of providing it. To keep those
24 residential local rates low, the Commission has — among other things — traditionally
25 authorized depreciation rates that are lower than those needed by BellSouth to recover
26 the costs of its universal service investments within their economic lifetimes. In
27 addition, the remaining shortfall in local residential service revenues has been partially
28 made up by a variety of contribution mechanisms, including contribution elements
29 embedded in the prices of BellSouth's wholesale services (purchased, e.g., by
30 interexchange carriers or IXC's) and retail services (purchased by end-users). Thus,
31 historically, a form of regulatory compact has existed: BellSouth, in return for
32 undertaking the universal service and COLR obligations, has been (1) offered
33 regulatory protection within its service area from competition, and (2) guaranteed a

1 reasonable opportunity to recover the costs of supplying universal service. With the
2 onset of local competition, BellSouth's market circumstances will change drastically.

3 Q. HOW WOULD THE ONSET OF COMPETITION AFFECT THE CURRENT
4 METHOD OF SUPPORT FOR UNIVERSAL SERVICE IN KENTUCKY?

5 A. The present method of raising the support through contribution elements in the prices
6 of various BellSouth services will not be economically efficient under competition.
7 Efficient competition requires that service providers compete on the basis of their costs
8 and that customers receive service of a desired quality from the lowest-cost provider.
9 When one such provider, BellSouth, is constrained by its obligation to raise universal
10 service support through its service prices, it would, in effect, be prevented from
11 competing on its true costs. For services whose prices are artificially inflated by the
12 contribution to universal service support, a price umbrella would be created which, in
13 turn, would encourage uneconomic entry by less efficient service providers. All those
14 providers would have to do to assure successful entry is to keep their costs in between
15 BellSouth's (lower) true costs and the price floor created by adding universal service
16 contribution to those costs. Since BellSouth can only reduce or eliminate those
17 contribution elements at the risk of failing to generate enough universal service support,
18 the price umbrella may persist under the present system of support. Hence, inefficient
19 competition too can persist, thus depriving customers the benefit of low and
20 competitive prices.

21 The present support system may well prove unsustainable under competition. If, as
22 expected, BellSouth responds to competition by lowering prices for its contribution-
23 bearing services, it would sacrifice its source of universal service support in exchange
24 for competitive survival. Underscoring this, however, is the fact that such a choice is
25 an artificial one, one that a competitive and efficient LEC would not face were it not
26 required by social policy to maintain a below-cost price for local telephone service.
27 Hence, the current method of implicit support built into BellSouth's rate structure is
28 seriously at odds with BellSouth's ability to compete fairly and efficiently.

1 Q. WHAT ALTERNATIVE TO THE PRESENT STRUCTURE OF UNIVERSAL
2 SERVICE SUPPORT WOULD YOU THEN ADVOCATE?

3 A. I would favor a support mechanism that has two components. First, it must relieve the
4 LEC from the burden of having to recover universal service support solely through its
5 service prices, and provide a mechanism that would allow the LEC and all other
6 competitors to set prices equally close to cost without sacrificing the revenues needed
7 to support universal service. Second, such a system must be competitively neutral. It
8 should not impose a greater burden on any one group of firms relative to the firms in a
9 competitive market. One way to accomplish this goal would be to raise the universal
10 service support through a contribution assessment imposed on the retail revenues of all
11 telecommunications carriers in Kentucky, including revenues from local exchange
12 services *per se*. Subject to the pricing constraints, all competitive carriers would be
13 free to adjust their service prices to recover these assessments.

14 Q. PLEASE EXPLAIN THE RATIONALE FOR SUCH A MECHANISM.

15 A. The alternative support mechanism would, in my opinion, achieve three objectives. It
16 would:

- 17 1. Promote efficient competition among service providers by restoring to them the
18 opportunity to compete on their costs and to price their services in accordance with
19 market demand rather than the obligation to raise a certain level of universal
20 service support.
- 21 2. Ensure that the burden of the support mechanism is broadly, fairly, and equitably
22 distributed among all telecommunications service providers and, ultimately, their
23 customers.
- 24 3. Promote fair competition among service providers within all telecommunications
25 market segments and, in particular, between LECs and ALECs by making it
26 impossible for the support mechanism to favor or promote one competitor over
27 another.

28 The proposed universal service support mechanism would promote fair competition by
29 subjecting all service providers (both across the spectrum of telecommunications
30 services and within specific market segments) to the same obligation to support
31 universal service in proportion to their retail revenues. This would allow fulfillment
32 also of the related objective of distributing the burden of such support fairly over the

1 broadest possible base of telecommunications firms certificated to operate in Kentucky.
2 This way, all service providers would share in the common social goal of universal
3 service, without any single firm or group of firms being obliged to carry an unduly high
4 share of the cost burden of universal service.

5 Economic efficiency would be promoted in two ways. An assessment would be
6 paid into the universal service support mechanism based on the retail revenues earned
7 by these firms from their Kentucky operations, not on the service prices of LECs
8 entrusted with universal service. Revenue-based assessments, like income taxes, tend
9 to be less distortionary than price-based contributions which are akin to excise taxes.
10 This is because price-based contributions can force inefficient substitution of one set of
11 services for others which, solely because of the contributions, are rendered more
12 expensive than their substitutes. In contrast, because they do not distort price-cost
13 relationships and do not induce inefficient substitutions among services, revenue-based
14 assessments would inhibit the kind of inefficient competition that the present system of
15 support would encourage. Put differently, when a tax-like mechanism must be used to
16 raise the universal service support, it would be economically less distortionary to do so
17 with revenue-based assessments than with price-based contributions.¹ Efficiency could
18 be promoted at another level. When service providers like LECs and ALECs compete
19 in many different segments of the telecommunications market (e.g., local access, local
20 usage, toll, optional services, etc.), they would have an opportunity to distribute their
21 revenue-based contribution burden among the different services they provide in
22 accordance with their respective demand conditions (e.g., in inverse proportion to their
23 respective price elasticities of demand). This would minimize whatever inefficiency
24 and economic welfare losses may be caused by the tax-like contribution assessments.

25 Q. HAS BELLSOUTH PROPOSED A MECHANISM IN KEEPING WITH THIS
26 PRINCIPLE?

¹ This result of the welfare effects of alternative taxes is well-known. See, e.g., a discussion of the related economic literature in E.K. Browning and J.M. Browning, Public Finance and the Price System, 2nd edition, New York: Macmillan Publishing Co., 1983 (esp. Ch. 10, "Principles of Tax Analysis").

1 A. Yes. BellSouth has proposed just such a mechanism, called the Universal Service
2 Preservation Fund (USPF), in a number of its states including Kentucky.²

3 Q. HAVE ALTERNATIVE UNIVERSAL SERVICE SUPPORT MECHANISMS BEEN
4 PROPOSED IN OTHER STATES?

5 A. Yes. Similar mechanisms are also being considered in other states, e.g., California and
6 Connecticut, among others. Specific proposals may differ in some of the details, but
7 the basic principle of using a competitively-neutral, external universal service fund
8 endures.

9 **B. Sizing the Universal Service Fund**

10 Q. WHAT SHOULD BE THE SIZE OF THE UNIVERSAL SERVICE PRESERVATION
11 FUND?

12 A. Given that its purpose would be to replace the present system of implicit support with
13 one that is explicit, broad-based, and competitively neutral, the USPF should be
14 designed to provide exactly the same level of support that the LEC providing universal
15 service has received historically. This level of support is simply the difference between
16 the total embedded cost to the LEC of providing the collection of services that has
17 traditionally been defined as "universal service" and the revenue it earns from those
18 services. The purpose behind a fund of this size is straightforward: to fully
19 compensate the incumbent LEC for undertaking its historical responsibility of
20 providing universal service under the terms of its regulatory compact with the
21 Commission.

22 Q. SHOULD THE UNIVERSAL SERVICE SUPPORT BE AVAILABLE ONLY TO
23 INCUMBENT LECS OR TO ENTRANT ALECS AS WELL?

24 A. I believe the universal service support should be divided into two components. The
25 first component would recover the unrecovered portion of the incumbent LEC's past
26 investments in universal service. This portion of the universal service fund could be

² Direct Testimony of Peter F. Martin, Kentucky Public Service Commission, Administrative Case No. 355, February 26, 1996.

1 approximated by the LEC's reserve deficiency allowance (RDA) for services viewed as
2 part of universal service. The RDA would be recovered as a fixed amount rather than
3 on a per-line basis, and would be phased out as it was amortized over time. This
4 amount should be dedicated, i.e., available only to the incumbent COLR LEC that has
5 accumulated a reserve deficiency because of its past regulatory compact with the
6 Commission.

7 The second component of support would be the amount by which the revenue from
8 universal service falls below the remaining cost of providing universal service (i.e.,
9 embedded cost less the RDA). This shortfall of universal service revenue would
10 remain and, therefore, be recovered on a per-line basis, as long as the social policy of
11 below-cost pricing of universal service continues. In practice, the amount of support
12 needed per line or customer would be the difference between the LEC's embedded cost
13 per line (adjusted for the RDA) and the universal service rate. This amount should be
14 portable, i.e., available to any LEC or ALEC that actually serves the customer or
15 provides the line and qualifies to be an "eligible telecommunications carrier" (ETC)
16 under the terms of recent federal telecommunications legislation.³

17 Q. WHY SHOULDN'T BELL SOUTH OR ANY COLR LEC BE REQUIRED TO
18 SIMPLY ABSORB OR "WRITE OFF" ITS RESERVE DEFICIENCY ALLOWANCE
19 AS FIRMS FACING COMPETITIVE PRESSURES OR OBSOLESCENCE DUE TO
20 TECHNOLOGICAL PROGRESS OFTEN DO?

21 A. If the reserve deficiency had been accumulated by BellSouth or the COLR LEC in the
22 past because of a voluntary and unfettered business decision to depreciate its
23 investments at a slower-than-economic rate, then it would be perfectly reasonable to
24 expect it to ask its shareholders to absorb the RDA as a cost of doing business in an
25 uncertain world. This, however, is historically not the case for BellSouth. BellSouth
26 accumulated the RDA under the implicit regulatory compact between it and the
27 Commission that offered an opportunity both to BellSouth to recover its legitimate
28 costs and to the Commission to pursue its goals of universal and affordable service. In

³ Telecommunications Act of 1996, Sec. 254(e) and Sec. 102(a) amending 47 U.S.C. 214.

1 light of this compact, any requirement now that BellSouth or the COLR LEC write off
2 its RDA would be unfair and economically damaging.

3 **C. Universal Service Support and Competition**

4 Q. EARLIER, YOU DISTINGUISHED BETWEEN TWO COMPONENTS OF
5 UNIVERSAL SERVICE SUPPORT. PLEASE EXPLAIN HOW THAT
6 DISTINCTION WOULD AFFECT COMPETITION IN THE LOCAL EXCHANGE
7 MARKET.

8 A. The purpose of the distinction was to separate out the non-portable component of
9 universal service support (the incumbent LEC's RDA) from the portion of support that
10 should be fully portable among carriers that provide universal service and qualify as
11 ETCs. Portability of this component of support will encourage efficient competition in
12 the local exchange market by allowing competitive providers of universal service to
13 compete on the basis of their costs. Economic efficiency will be promoted whenever
14 customers have the opportunity to be served by service providers with the lowest cost.
15 Thus, portability would permit ALECs to match their incremental costs of providing
16 universal service against the incumbent LEC's (embedded) cost of that service.

17 If the embedded cost of the incumbent LEC is below the ALEC's incremental cost,
18 the LEC should be able to retain all of its lines and recover its full embedded costs. If
19 the ALEC's incremental cost is above the LEC's incremental, but below its embedded,
20 cost, the LEC should still be able to retain all of its lines but it would recover only the
21 portion of its embedded costs that was below the ALEC's incremental costs. Finally,
22 where the ALEC's incremental cost is below that of the incumbent LEC, the ALEC
23 will capture the customer and the LEC will have to absorb the excess of its embedded
24 cost over its incremental cost.

25 Q. CAN YOU ILLUSTRATE THROUGH AN HYPOTHETICAL EXAMPLE HOW
26 THIS WOULD WORK?

27 A. To illustrate how the universal service fund, so constituted, would work to both assure
28 universal service goals and promote efficient competition in the local exchange market,
29 consider the following hypothetical cases.